

# Vista Depot Master Plan

## Traffic Impact Study

Columbia, South Carolina

*Prepared for*

Southern Realty Development Corporation

*Prepared by*

**Kimley»Horn**

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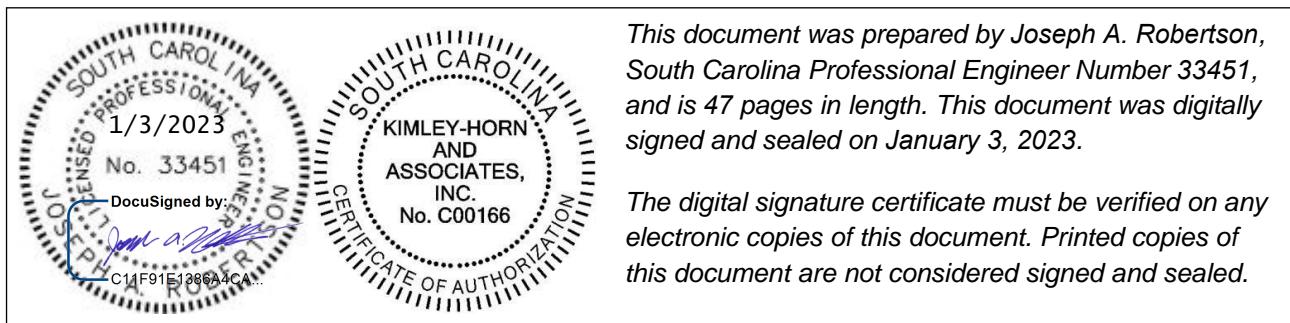
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## 1 Executive Summary

The proposed development is located on the 800 block of Gervais Street, south of the Gervais Street at Gadsden Street intersection. Currently onsite, the development includes roughly 115,000 square feet of office space and approximately 49,000 square feet of restaurant/bar space. The proposed additional development is to consist of two hotels up to 301 keys, multi-family apartment housing up to 183 units, and a parking structure to accommodate existing and proposed development. It is assumed that the project will access the roadway network via two existing access points on Gervais Street including one ingress-only access road at Wayne Street and Gervais Street and one full access road at the intersection of Gadsden Street and Gervais Street. Additionally, an access point will be provided at the rear of the site on Pendleton Street to serve the proposed parking garage.

It was assumed that the development will be built and fully occupied by 2026. This study summarizes the results of the traffic analyses at the following study intersections.

- 1) Gervais Street & Wayne Street
- 2) Gervais Street & Gadsden Street/Site Access #1
- 3) Wayne Street & Site Access #2
- 4) Pendleton Street & Site Access #3 (parking structure)

No significant impacts to the transportation network were identified as a result of this analysis, therefore, no improvements are recommended.

## 1 Introduction

The proposed development is located on the 800 block of Gervais Street, south of the Gervais Street at Gadsden Street intersection. Currently onsite, the development includes roughly 115,000 square feet of office space and approximately 49,000 square feet of restaurant/bar space. The proposed additional development is to consist of two hotels up to 301 keys, multi-family apartment housing up to 183 units, and a parking structure to accommodate existing and proposed development. It is assumed that the project will access the roadway network via two access points on Gervais Street including one ingress-only access road at Wayne Street and Gervais Street and one full access road at the intersection of Gadsden Street and Gervais Street. Additionally, an access point will be provided at the rear of the site on Pendleton Street to serve the proposed parking garage. The location of the proposed development and concept plan are illustrated in **Figure 1** and **Figure 2**.

It was assumed that the development will be built and fully occupied by 2026. This study summarizes the results of the traffic analyses of 2022 existing conditions, 2026 no build conditions, and 2026 build conditions during the AM and PM peak hours.

The project study area consists of the following study intersections.

- 1) Gervais Street & Wayne Street
- 2) Gervais Street & Gadsden Street/Site Access #1
- 3) Wayne Street & Site Access #2
- 4) Pendleton Street & Site Access #3 (parking structure)

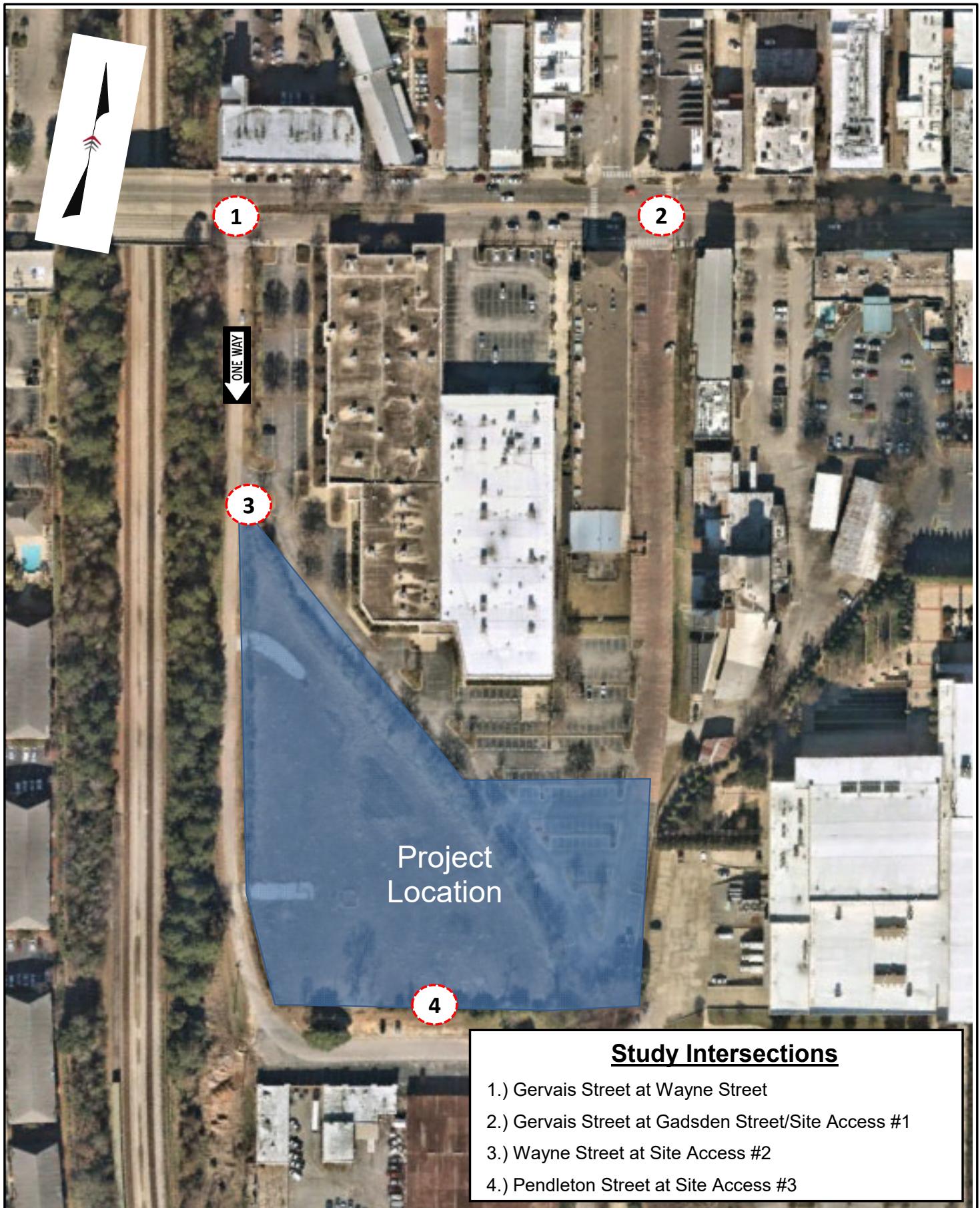
### 1.1 Existing Conditions

Gervais Street (US 1) is a five-lane, undivided, urban major principal arterial with a posted speed limit of 35 mph. Based upon SCDOT data, 30,500 vehicles per day traveled along Gervais Street in 2019 at a count station located east of the Gervais Street at Wayne Street intersection.

Gadsden Street (S-106) is a two-lane, undivided, urban major collector with a posted speed limit of 30 mph. Based upon SCDOT data, 1,900 vehicles per day traveled along Gadsden Street in 2019 at a count station located north of the Gervais Street at Gadsden Street intersection.

Wayne Street (L-453) is a southbound one-way local road with a posted speed limit of 30 mph. No daily count data is available for Wayne Street.

The existing geometry and traffic control for the study area intersections is illustrated in **Figure 3**.

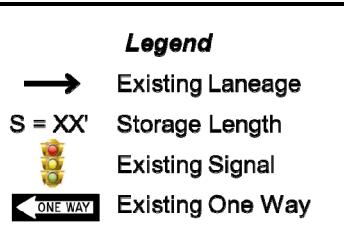
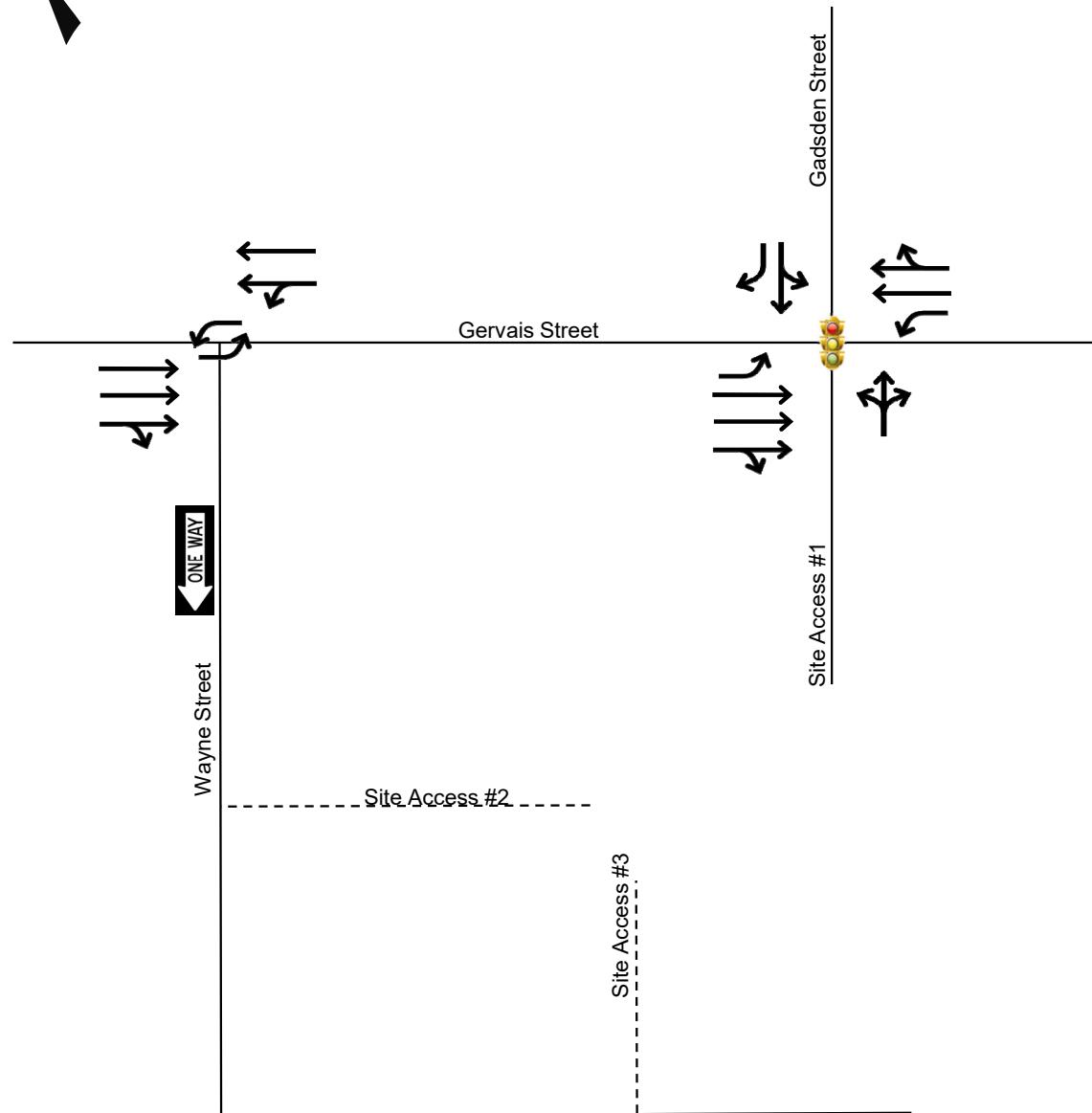




1 CENTRIC GUEST DROP-OFF	7 ENTRY DRIVE WITH NEW BRICK PATTERNS	13 BUILDING SETBACK	19 PEDESTRIAN CROSSWALK WITH ENHANCED PAVING
2 HOUSE GUEST DROP-OFF	8 NEW ACCESSIBLE PARKING, 18'x24'	14 PEDESTRIAN CONNECTION TO CONVENTION CENTER	20 OUTLINE OF PARKING STRUCTURE BELOW
3 NEW PARKING SPACE, 9'0", 9'X18'	9 NEW EXTERIOR STAIR TO GADSEN STREET	15 FUTURE GARDEN SIDEWALK	21 LANDSCAPED SLOPE
4 NEW PARKING SPACE, 4'5", 9'X18'	10 TRASH ENCLOSURE	16 NEW LANDSCAPE AREA	22 PROPERTY LINE
5 CENTRIC MONUMENT SIGNAGE	11 HOTEL RECEIVING AREA	17 DELIVERY VEHICLE CONNECTION	23 TENANT COMMON COURTYARD
6 HOUSE MONUMENT SIGNAGE	12 PARKING STRUCTURE ELEVATOR	18 NEW PEDESTRIAN SIDEWALK	24 APARTMENT BUILDING ENTRANCE
			25 APARTMENT POOL & DECK

### PROPOSED SITE PLAN

1' - 40'-0"



## 2 Project Traffic

### 2.1 Trip Generation

The trip generation rates and equations published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* were used to estimate the trip generation potential for the development. The analysis was performed using the information provided for land use code (LUC) 221 – Multifamily Housing (Mid-Rise) and LUC 310 – Hotel. The proposed hotels are expected to include restaurant and bar/lounge space, as well as a small meeting space. Based on guidance in the ITE *Trip Generation Manual*, these uses are anticipated to be ancillary to the operation of the hotel and as such are accounted for within the LUC 310 – Hotel trip generation estimate.

Due to the nature of the development pass-by trip reductions are not included in the trip generation analysis.

The estimated trip generation for the Vista Depot Master Plan is summarized in **Table 1**, which indicates that the development is anticipated to generate 207 trips (93 in/114 out) during the AM peak hour and 248 trips (134 in/114 out) during the PM peak hour.

**Table 1 – Trip Generation Summary**

Vista Depot Master Plan Trip Generation									
Land Use	Intensity	Units	Daily	AM Peak Hour			PM Peak Hour		
				Total	In	Out	Total	In	Out
221 - Multifamily Housing (Mid-Rise)	183	DU	826	69	16	53	72	44	28
310 - Hotel	301	ROOM	2,839	138	77	61	178	91	87
<b>Subtotal</b>			<b>3,665</b>	<b>207</b>	<b>93</b>	<b>114</b>	<b>250</b>	<b>135</b>	<b>115</b>
<b>Internal Capture</b>			<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>
<b>Total Net New External Trips</b>			<b>3,653</b>	<b>207</b>	<b>93</b>	<b>114</b>	<b>248</b>	<b>134</b>	<b>114</b>

Note: Trip generation was calculated using the following data:

<b>Daily Traffic Generation</b>	
221 - Multifamily Housing (Mid-Rise)	ITE 221 = $T = 4.77 * (X) + (-46.46); (50 \% \text{ In}; 50 \% \text{ Out})$
310 - Hotel	ITE 310 = $T = 10.84 * (X) + (-423.51); (50 \% \text{ In}; 50 \% \text{ Out})$
<b>AM Peak-Hour Traffic Generation</b>	
221 - Multifamily Housing (Mid-Rise)	ITE 221 = $T = 0.44 * (X) + (-11.61); (23 \% \text{ In}; 77 \% \text{ Out})$
310 - Hotel	ITE 310 = $T = 0.46 (X); (56 \% \text{ In}; 44 \% \text{ Out})$
<b>PM Peak-Hour Traffic Generation</b>	
221 - Multifamily Housing (Mid-Rise)	ITE 221 = $T = 0.39 * (X) + (0.34); (61 \% \text{ In}; 39 \% \text{ Out})$
310 - Hotel	ITE 310 = $T = 0.59 (X); (51 \% \text{ In}; 49 \% \text{ Out})$

## 2.2 Trip Distribution & Assignment

New external trips generated by the proposed development were distributed and assigned to the surrounding roadway network based on existing travel patterns, surrounding land uses, and the proposed site layout. The trip distribution percentages used in this analysis are as follows.

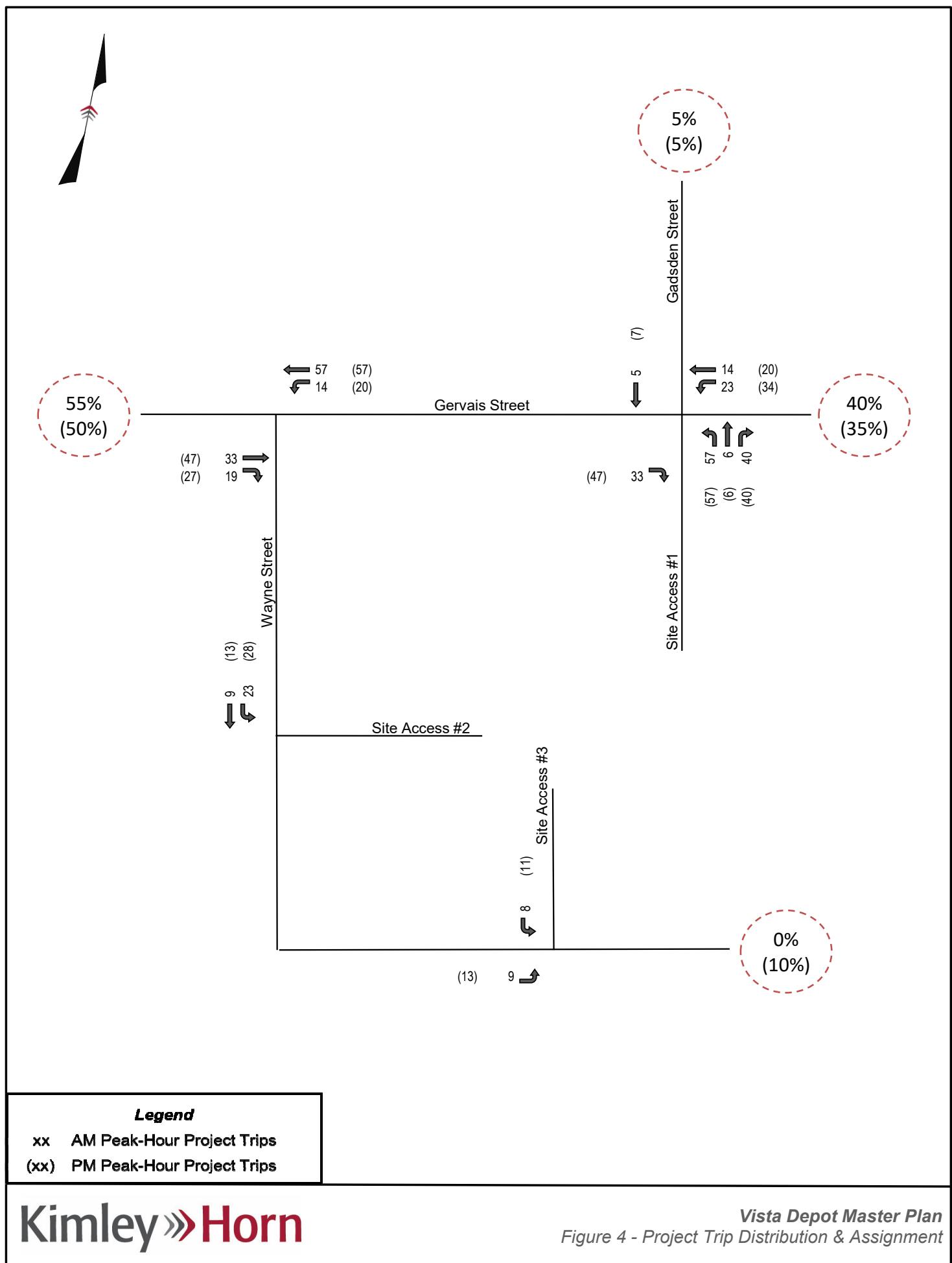
### *Entering Traffic*

- 55% from the West via Gervais Street
- 40% from the East via Gervais Street
- 5% from the North via Gadsden Street

### *Exiting Traffic*

- 45% to the West via Gervais Street
- 35% to the East via Gervais Street
- 15% to the East via Pendleton Street
- 5% to the North via Gadsden Street

The site trip distribution and proposed new external trips are illustrated in **Figure 4**.



### **3 Future Traffic Volume Development**

Existing 2022 traffic volumes were utilized in the analysis and future-year traffic volumes were developed for projected 2026 conditions. The future-year volumes consisted of the existing traffic volumes adjusted by an annual growth rate and the projected traffic volumes of the Vista Depot Master Plan development. Worksheets documenting the traffic volume development are provided in **Appendix A**.

#### **3.1 2022 Existing Traffic**

Peak-hour intersection turning movement counts were conducted in the AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM) on Tuesday, August 23, 2022.

**Figure 5** illustrates the 2022 existing peak-hour traffic volumes for the AM and PM peak hours. The raw turning-movement count data is included in **Appendix B**.

#### **3.2 Future-Year No-Build Traffic Development**

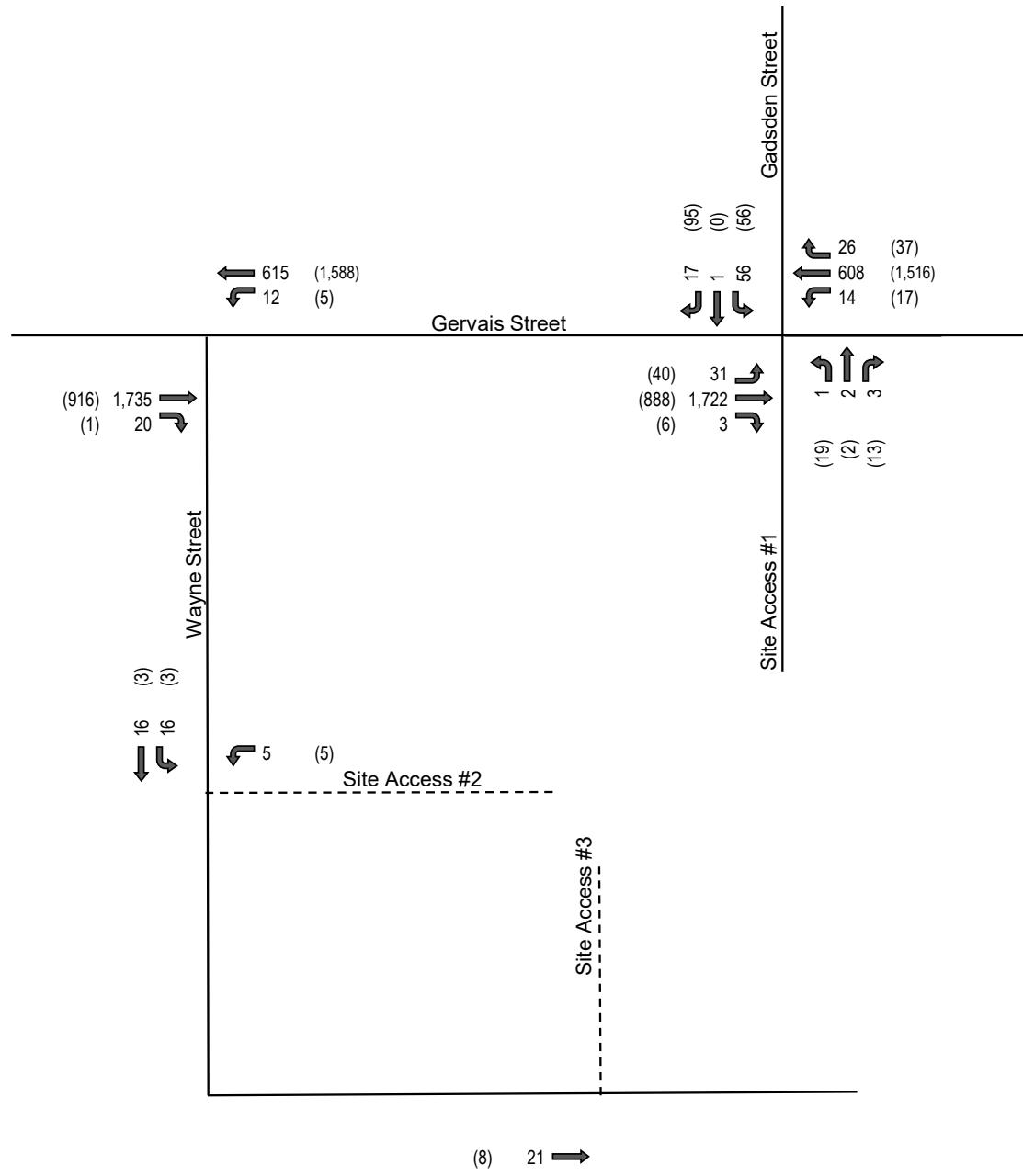
It was assumed that the development will be built and fully occupied by 2026. The future-year traffic volumes consist of the 2022 existing traffic volumes adjusted by a growth rate for the no-build scenarios.

To determine the historical growth rate in the area, traffic count data was obtained from SCDOT for a count station along Gervais Street. Over the past five years, these roadways have experienced an annual growth rate of approximately 1.5%, which was used to develop the 2026 no-build traffic volumes. A worksheet documenting the growth rate determination is included in **Appendix C**. No approved, committed developments were identified within the study area.

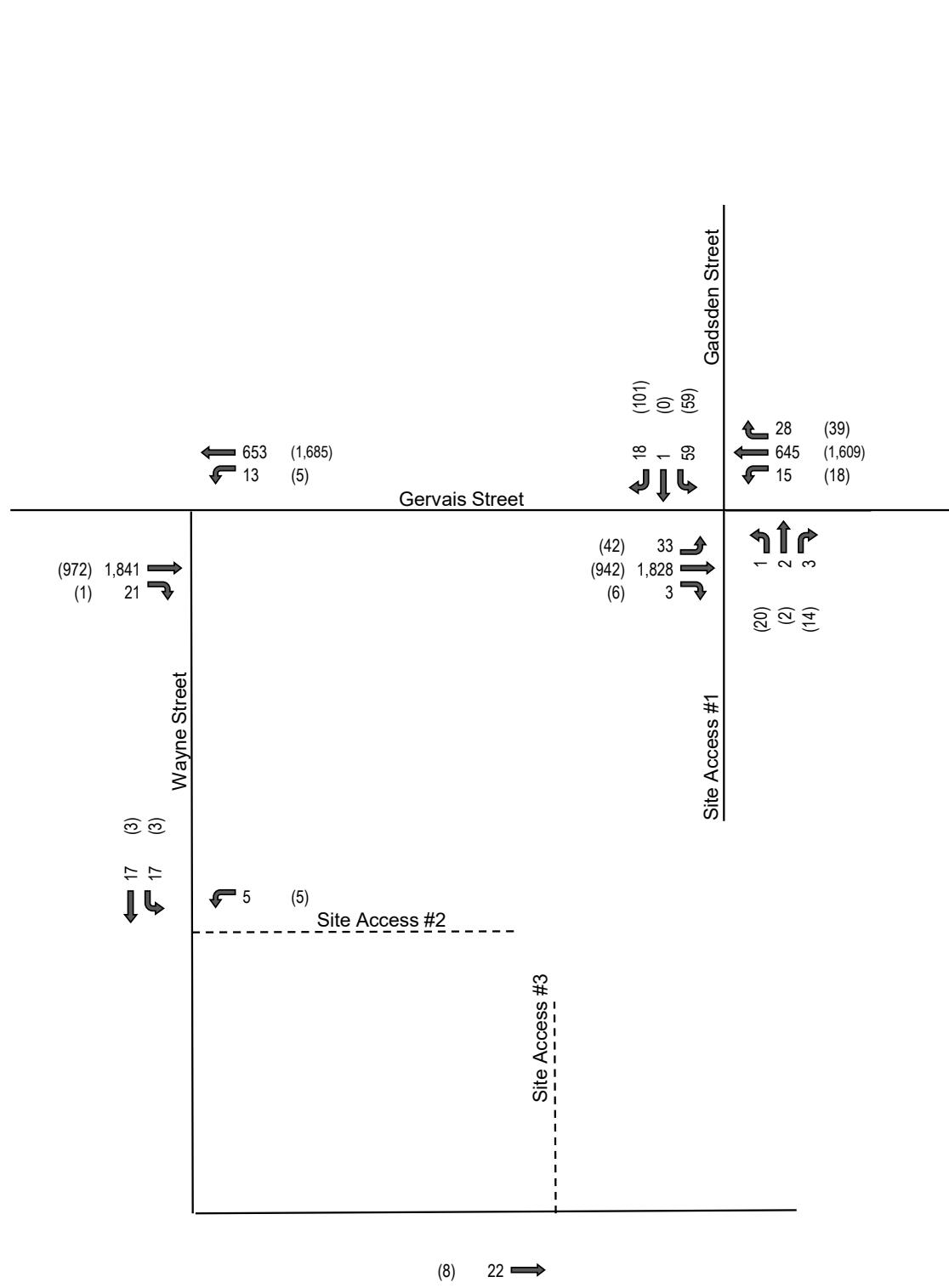
**Figure 6** illustrates the 2026 no-build traffic volumes for the AM and PM peak hours.

#### **3.3 Future-Year Build Traffic Development**

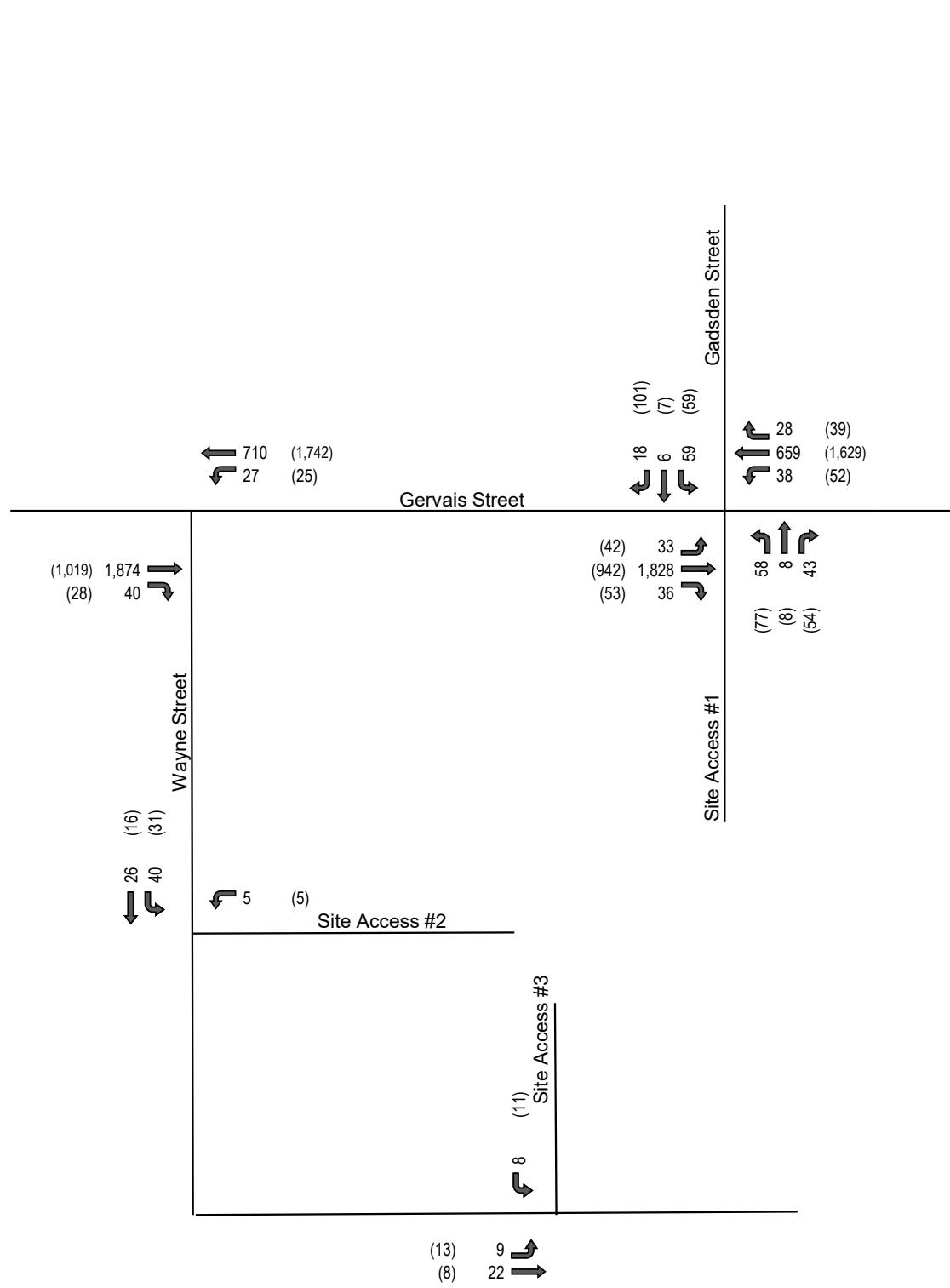
The Vista Depot Master Plan project traffic volumes were added to the no-build traffic volumes to develop the 2026 build traffic for the AM and PM peak hours and are illustrated in **Figure 7**.

**Legend**

- xx AM Peak-Hour Traffic Volumes
- (xx) PM Peak-Hour Traffic Volumes

**Legend**

- xx AM Peak-Hour Traffic Volumes
- (xx) PM Peak-Hour Traffic Volumes

**Legend**

- xx AM Peak-Hour Traffic Volumes
- (xx) PM Peak-Hour Traffic Volumes

## 4 Capacity Analysis

Capacity/level-of-Service (LOS) analyses were conducted using the *Highway Capacity Manual (HCM)*, 6<sup>th</sup> Edition, methodologies of the *Synchro*, Version 11, traffic analysis software. Capacity analyses were conducted for the AM and PM peak hours of the 2022 existing conditions, 2026 no-build conditions, and 2026 build conditions analysis scenarios.

Intersection level of service (LOS) grades range from LOS A to LOS F, which are directly related to the level of control delay at the intersection and characterize the operational conditions of the intersection traffic flow. LOS A operations typically represent ideal, free-flow conditions where vehicles experience little to no delays, and LOS F operations typically represent poor, gridlocked conditions with high vehicular delays, and are generally considered undesirable. **Table 2** lists the LOS control delay thresholds published in the *HCM* for signalized and unsignalized intersections.

**Table 2 – HCM Level of Service Criteria**

LOS	Control Delay per Vehicle (sec/veh)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 – 20	> 10 – 15
C	> 20 – 35	> 15 – 25
D	> 35 – 55	> 25 – 35
E	> 55 – 80	> 35 – 50
F	> 80	> 50

As part of the intersection analysis, SCDOT's default Synchro parameters were utilized. Existing peak-hour factors (PHF) were utilized for the existing scenarios and the PHFs for the future-year scenarios were adjusted to a minimum of 0.90 and maximum of 0.95. Existing heavy vehicle percentages were utilized for all scenarios, with a minimum of 2% considered.

The following sections outline the results of the capacity analysis for each of the study intersections. The capacity analysis worksheets are included in **Appendix D**.

## **4.1 Gervais Street at Wayne Street**

Due to Wayne Street operating as a one-way street (southbound only), a capacity analysis for the intersection of Gervais Street at Wayne Street was not computed. It should be noted that a small amount of wrong-way traffic was observed exiting Wayne Street within the traffic counts. To account for this, existing northbound turning traffic making prohibited movements from Wayne Street was shifted to the respective turning movements at the intersection of Gervais Street and Gadsden Street/Site Access #1 for the purpose of analysis.

## **4.2 Gervais Street at Gadsden Street/Site Access #1**

The capacity analysis results for the intersection of Gervais Street at Gadsden Street/Site Access #1 are summarized in **Table 3**.

It should be noted for the purpose of analysis an exclusive eastbound right turn lane was evaluated at the intersection of Gervais Street at Gadsden Street/Site Access #1 due to an upstream exclusive right turn lane at the intersection of Lincoln Street at Gervais Street. Based on field observations, vehicles traveling eastbound through the intersection in the furthest most right lane are continuing upstream to complete a right turn onto Lincoln Street and very few through-vehicles utilize the rightmost eastbound lane at the Gadsden Street intersection.

**Table 3 – Gervais Street at Gadsden Street/Site Access #1 Analysis Results**

Gervais Street at Gadsden Street/Site Access #1 LOS (Delay) Results						
Condition	Measure	EB (Gervais Street)	WB (Gervais Street)	NB (Site Access #1)	SB (Gadsden Street)	Intersection
<b>AM Peak Hour</b>						
Existing	LOS (Delay)	A (3.6)	A (2.1)	D (52.0)	D (53.8)	A (4.8)
2026 No Build	LOS (Delay)	A (3.9)	A (2.1)	D (51.9)	D (53.9)	A (5.0)
2026 Build	LOS (Delay)	A (6.6)	A (4.3)	E (55.5)	D (48.5)	A (9.1)
<b>PM Peak Hour</b>						
Existing	LOS (Delay)	A (2.3)	A (3.7)	D (54.2)	E (55.9)	A (6.8)
2026 No Build	LOS (Delay)	A (2.4)	A (4.0)	D (54.7)	E (56.4)	A (7.0)
2026 Build	LOS (Delay)	A (4.9)	A (7.7)	D (54.7)	D (46.8)	B (11.0)

The intersection of Gervais Street at Gadsden Street/Site Access #1 is anticipated to operate at LOS A during the AM peak hour and LOS B during the PM peak hour under 2026 Build conditions. The northbound approach is expected to operate at LOS E during the AM peak hour and LOS D during the PM peak hour under build conditions but the increased delay on this approach is expected to be minimal. Due to coordinated signal operations along Gervais Street, the delay of the minor street will remain unchanged. According to the 2020-2027 Transportation Improvement Program (TIP) from the Columbia Area Transportation Study (COATS), it is understood the downtown Columbia signal system is anticipated for improvements to occur that will likely improve operations at this location, therefore no improvements are recommended as part of this study.

### **4.3 Wayne Street at Site Access #2**

The capacity analysis results for the intersection of Wayne Street at Site Access #2 are summarized in **Table 4**.

**Table 4 - Wayne Street at Site Access #2**

Wayne Street at Site Access #2		
Condition	Measure	WB (Site Access #2 )
<b>AM Peak Hour</b>		
2026 Build	LOS (Delay)	A (9.1)
<b>PM Peak Hour</b>		
2026 Build	LOS (Delay)	A (9.0)

The stop-controlled site access along Wayne Street is anticipated to operate at LOS A during the AM and PM peak hours with minimal delay; therefore, no improvements are recommended.

### **4.4 Pendleton Street at Site Access #3 (Parking Structure)**

The capacity analysis results for the intersection of Pendleton Street at Site Access #3 are summarized in **Table 5**.

**Table 5 - Pendleton Street at Site Access #3 Analysis Results**

Pendleton Street at Site Access #3		
Condition	Measure	SB (Site Access #3)
<b>AM Peak Hour</b>		
2026 Build	LOS (Delay)	A (8.8)
<b>PM Peak Hour</b>		
2026 Build	LOS (Delay)	A (8.7)

The capacity analysis results indicate that the intersection of Pendleton Street at Site Access #3 is anticipated to operate at LOS A during both the AM and PM peak hours.

It should be noted the analysis of the connectivity to Greene Street and intersection of Pendleton Street at Greene Street was not included in this study due to the ongoing construction on Greene Street.

## 5 Conclusion

The proposed development is located on the 800 block of Gervais Street, south of the Gervais Street at Gadsden Street intersection. Currently onsite, the development includes roughly 115,000 square feet of office space and approximately 49,000 square feet of restaurant/bar space. The proposed additional development is to consist of two hotels up to 301 keys, multi-family apartment housing up to 183 units, and a parking structure to accommodate existing and proposed development. It is assumed that the project will access the roadway network via two access points on Gervais Street including one enter-only access road at Wayne Street and Gervais Street and one full access road at the intersection of Gadsden Street and Gervais Street.

It was assumed that the development will be built and fully occupied by 2026. This study summarizes the results of the traffic analyses at the following three study intersections.

- 1) Gervais Street & Wayne Street
- 2) Gervais Street & Gadsden Street/Site Access #1
- 3) Wayne Street & Site Access #2
- 4) Pendleton Street & Site Access #3 (parking structure)

No significant impacts to the transportation network were identified as a result of this analysis, therefore, no improvements are recommended.

## **Appendix A – Volume Development Worksheets**

## **INTERSECTION TRAFFIC VOLUME DEVELOPMENT**

**INTERSECTION:** Gervais St at Wayne St

**COUNT DATE:**

AM PEAK HOUR FACTOR: 0.92  
PM PEAK HOUR FACTOR: 0.96

AM FUTURE PEAK HOUR FACTOR: 0.92  
PM FUTURE PEAK HOUR FACTOR: 0.95

## **AM Peak Hour**

## PM Peak Hour

### INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: Gervais St at Gadsden Street/Site Access #1

COUNT DATE:

AM PEAK HOUR FACTOR: 0.93  
PM PEAK HOUR FACTOR: 0.95AM FUTURE PEAK HOUR FACTOR: 0.93  
PM FUTURE PEAK HOUR FACTOR: 0.95

#### AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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AM Adjusted Turning Movement Counts <sup>1</sup>	0	31	1,722	3	0	14	608	26	0	1	2	3	0	56	1	17
AM Volume Balancing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM 2022 EXISTING TRAFFIC	0	31	1,722	3	0	14	608	26	0	1	2	3	0	56	1	17
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AM Heavy Vehicle Percentage	2%	2%	1%	2%	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%
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AM 2026 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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Annual Growth Rate	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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AM 2026 NO-BUILD TRAFFIC GROWTH	0	2	106	0	0	1	37	2	0	0	0	0	0	3	0	1
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AM 2026 NO-BUILD TRAFFIC	0	33	1,828	3	0	15	645	28	0	1	2	3	0	59	1	18
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AM NO-BUILD TRAFFIC	0	31	1,722	3	0	14	608	26	0	1	2	3	0	56	1	17
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#### "SITE TRAFFIC DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Net New Distribution	Entering					35%		25%	15%								5%
	Exiting																

#### "AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Project Trip	Net New	0	0	0	33	0	23	14	0	0	57	6	40	0	0	5	0
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AM TOTAL PROJECT TRIPS	0	0	0	33	0	23	14	0	0	57	6	40	0	0	5	0
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AM 2026 BUILD-OUT TRAFFIC	0	33	1,828	36	0	38	659	28	0	58	8	43	0	59	6	18
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#### PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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PM Adjusted Turning Movement Counts <sup>1</sup>	0	40	888	6	0	17	1,516	37	0	18	2	7	0	56	0	95
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PM Volume Balancing	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0
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Peak Season Correction Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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PM 2022 EXISTING TRAFFIC	0	40	888	6	0	17	1,516	37	0	19	2	13	0	56	0	95
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PM Heavy Vehicle Percentage	2%	2%	1%	2%	2%	2%	0%	3%	2%	2%	2%	2%	2%	2%	2%	1%
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PM 2026 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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Annual Growth Rate	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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PM 2026 NO-BUILD TRAFFIC GROWTH	0	2	54	0	0	1	93	2	0	1	0	1	0	3	0	6
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PM 2026 NO-BUILD TRAFFIC (No AD)	0	42	942	6	0	18	1,609	39	0	20	2	14	0	59	0	101
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PM 2026 NO-BUILD TRAFFIC	0	42	942	6	0	18	1,609	39	0	20	2	14	0	59	0	101
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#### "SITE TRAFFIC DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Net New Distribution	Entering					35%		25%	15%							5%
	Exiting															

#### "PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Project Trip	Net New	0	0	0	47	0	34	20	0	0	57	6	40	0	0	7	0
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PM TOTAL PROJECT TRIPS	0	0	0	47	0	34	20	0	0	57	6	40	0	0	7	0
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PM 2026 BUILD-OUT TRAFFIC	0	42	942	53	0	52	1,629	39	0	77	8	54	0	59	7	101
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**INTERSECTION TRAFFIC VOLUME DEVELOPMENT**

INTERSECTION: Wayne St at Site Access #2

COUNT DATE:

AM PEAK HOUR FACTOR: 0.00  
PM PEAK HOUR FACTOR: 0.00AM FUTURE PEAK HOUR FACTOR: 0.90  
PM FUTURE PEAK HOUR FACTOR: 0.90**AM Peak Hour**

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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AM Adjusted Turning Movement Counts <sup>1</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Volume Balancing	0	0	0	0	0	5	0	0	0	0	0	0	0	16	16	0

AM 2022 EXISTING TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	0	16	16	0
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AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
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AM 2026 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
--------------------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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Annual Growth Rate	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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AM 2026 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
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AM 2026 NO-BUILD TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	17	17	0
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AM NO-BUILD TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	16	16	0
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**"SITE TRAFFIC DISTRIBUTION"**

LAND USE	TYPE	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Net New Distribution	Entering														25%	10%
	Exiting															

**"AM PROJECT TRIPS"**

LAND USE	TYPE	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	0	0	0	23	9	0
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AM TOTAL PROJECT TRIPS	0	0	0	0	0	0	0	0	0	0	0	0	0	23	9	0
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AM 2026 BUILD-OUT TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	40	26	0
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**PM Peak Hour**

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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PM Adjusted Turning Movement Counts <sup>1</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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PM Volume Balancing	0	0	0	0	0	5	0	0	0	0	0	0	0	3	3	0
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Peak Season Correction Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
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PM 2022 EXISTING TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	3	3	0
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PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
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PM 2026 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
--------------------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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Annual Growth Rate	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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PM 2026 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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PM 2026 NO-BUILD TRAFFIC (No AD)	0	0	0	0	0	5	0	0	0	0	0	0	0	3	3	0
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PM 2026 NO-BUILD TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	3	3	0
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**"SITE TRAFFIC DISTRIBUTION"**

LAND USE	TYPE	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Net New Distribution	Entering														25%	10%
	Exiting															

**"PM PROJECT TRIPS"**

LAND USE	TYPE	EBU	EBL	EBT	EBC	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Project Trip	Net New	0	0	0	0	0	0	0	0	0	0	0	0	0	28	13	0
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PM TOTAL PROJECT TRIPS	0	0	0	0	0	0	0	0	0	0	0	0	0	28	13	0
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PM 2026 BUILD-OUT TRAFFIC	0	0	0	0	0	5	0	0	0	0	0	0	0	31	16	0
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### INTERSECTION TRAFFIC VOLUME DEVELOPMENT

INTERSECTION: Wayne St at Site Access #3

COUNT DATE:

AM PEAK HOUR FACTOR: 0.00  
PM PEAK HOUR FACTOR: 0.00AM FUTURE PEAK HOUR FACTOR: 0.90  
PM FUTURE PEAK HOUR FACTOR: 0.90

#### AM Peak Hour

AM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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AM Adjusted Turning Movement Counts <sup>1</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM Volume Balancing	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0

AM 2022 EXISTING TRAFFIC	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
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AM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
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AM 2026 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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Annual Growth Rate	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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AM 2026 NO-BUILD TRAFFIC GROWTH	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
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AM 2026 NO-BUILD TRAFFIC	0	0	22	0	0	0	0	0	0	0	0	0	0	0	0	0
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AM NO-BUILD TRAFFIC	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0
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#### "SITE TRAFFIC DISTRIBUTION"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Net New Distribution	Entering		10%														
	Exiting															10%	

#### "AM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Project Trip	Net New	0	9	0	0	0	0	0	0	0	0	0	0	0	8	0	0
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AM TOTAL PROJECT TRIPS	0	9	0	0	0	0	0	0	0	0	0	0	0	8	0	0
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AM 2026 BUILD-OUT TRAFFIC	0	9	22	0	0	0	0	0	0	0	0	0	0	8	0	0
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#### PM Peak Hour

PM 2022 EXISTING TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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PM Adjusted Turning Movement Counts <sup>1</sup>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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PM Volume Balancing	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
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Peak Season Correction Factor																
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PM 2022 EXISTING TRAFFIC	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
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PM Heavy Vehicle Percentage	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
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PM 2026 NO-BUILD TRAFFIC	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Years To Buildout	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
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Annual Growth Rate	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
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PM 2026 NO-BUILD TRAFFIC GROWTH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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PM 2026 NO-BUILD TRAFFIC (No AD)	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
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PM 2026 NO-BUILD TRAFFIC	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0
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LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Net New Distribution	Entering		10%													
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	Exiting														10%	
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#### "PM PROJECT TRIPS"

LAND USE	TYPE	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
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Project Trip	Net New	0	13	0	0	0	0	0	0	0	0	0	0	0	11	0	0
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PM TOTAL PROJECT TRIPS	0	13	8	0	0	0	0	0	0	0	0	0	0	0	11	0	0
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PM 2026 BUILD-OUT TRAFFIC	0	13	8	0	0	0	0	0	0	0	0	0	0	0	11	0	0
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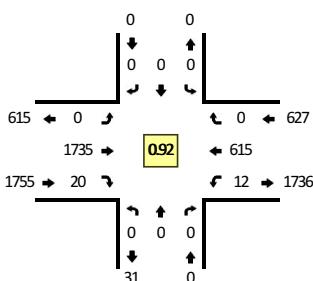
## **Appendix B – Raw Traffic Movement Counts**

Type of peak hour being reported: Intersection Peak

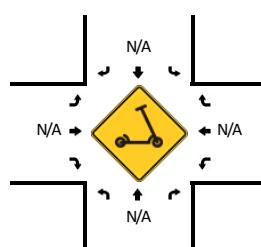
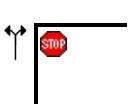
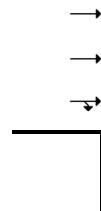
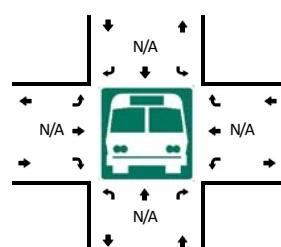
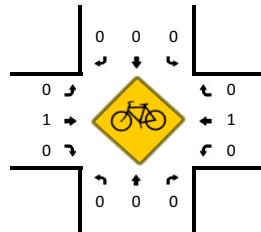
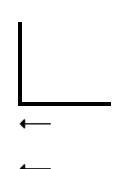
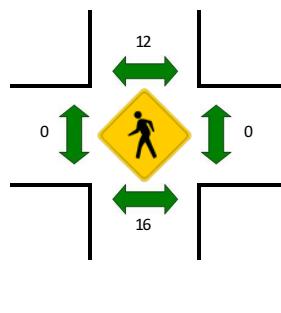
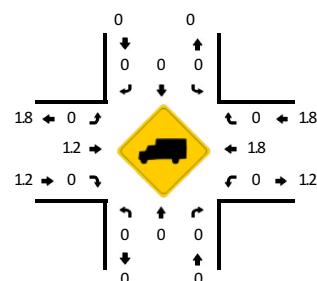
Method for determining peak hour: Total Entering Volume

**LOCATION:** Wayne St -- Gervais St  
**CITY/STATE:** Columbia, SC

**QC JOB #:** 15913403  
**DATE:** Tue, Aug 23 2022



**Peak-Hour: 7:30 AM -- 8:30 AM**  
**Peak 15-Min: 8:00 AM -- 8:15 AM**



15-Min Count Period Beginning At	Wayne St (Northbound)				Wayne St (Southbound)				Gervais St (Eastbound)				Gervais St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	0	234	3	0	1	102	0	0	340	
7:15 AM	0	0	0	0	0	0	0	0	0	315	10	0	0	121	0	0	446	
7:30 AM	0	0	0	0	0	0	0	0	0	374	4	0	4	143	0	0	525	
7:45 AM	0	0	0	0	0	0	0	0	0	435	4	0	2	156	0	0	597	1908
8:00 AM	0	0	0	0	0	0	0	0	0	469	7	0	4	164	0	0	644	2212
8:15 AM	0	0	0	0	0	0	0	0	0	457	5	0	1	152	0	1	616	2382
8:30 AM	1	0	1	0	0	0	0	0	0	360	3	0	5	137	0	1	508	2365
8:45 AM	1	0	0	0	0	0	0	0	0	342	3	0	1	157	0	2	506	2274
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	0	0	0	1876	28	0	16	656	0	0	2576	
Heavy Trucks	0	0	0	0	0	0	0	0	0	28	0	0	0	12	0	0	40	
Buses																		
Pedestrians																		
Bicycles																		
Scooters																		

**Comments:**

Report generated on 8/30/2022 6:43 AM

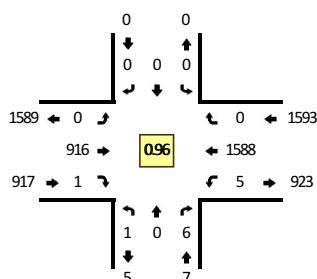
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

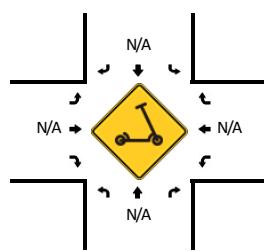
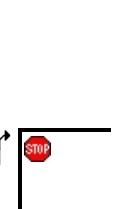
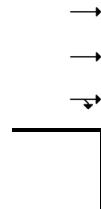
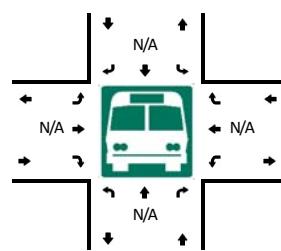
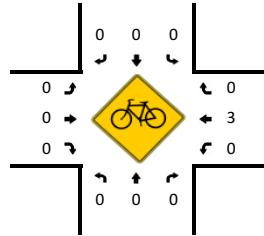
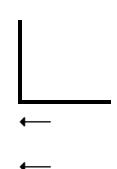
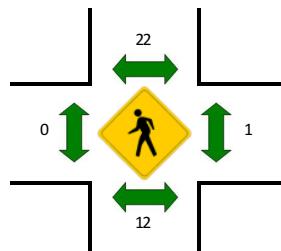
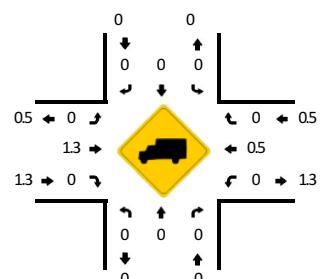
Method for determining peak hour: Total Entering Volume

**LOCATION:** Wayne St -- Gervais St  
**CITY/STATE:** Columbia, SC

**QC JOB #:** 15913404  
**DATE:** Tue, Aug 23 2022



**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 4:15 PM -- 4:30 PM**



15-Min Count Period Beginning At	Wayne St (Northbound)				Wayne St (Southbound)				Gervais St (Eastbound)				Gervais St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	0	0	0	227	1	0	0	358	0	0	586	
4:15 PM	1	0	1	0	0	0	0	0	0	240	0	0	2	414	0	0	658	
4:30 PM	0	0	2	0	0	0	0	0	0	209	0	0	1	392	0	0	604	
4:45 PM	0	0	2	0	0	0	0	0	0	230	0	0	1	371	0	1	605	2453
5:00 PM	0	0	1	0	0	0	0	0	0	237	1	0	0	411	0	0	650	2517
5:15 PM	0	0	1	0	0	0	0	0	0	228	0	0	1	360	0	2	592	2451
5:30 PM	0	0	0	0	0	0	0	0	0	233	0	0	0	339	0	1	573	2420
5:45 PM	0	0	0	0	0	0	0	0	0	243	0	0	5	312	0	3	563	2378
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	4	0	4	0	0	0	0	0	0	960	0	0	8	1656	0	0	2632	
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	20	0		32	
Buses																		
Pedestrians	0						12		0				0					12
Bicycles	0	0	0		0	0	0		0	0	0		0	8	0		8	
Scooters																		

**Comments:**

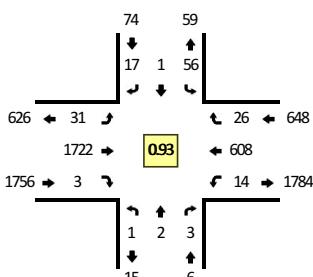
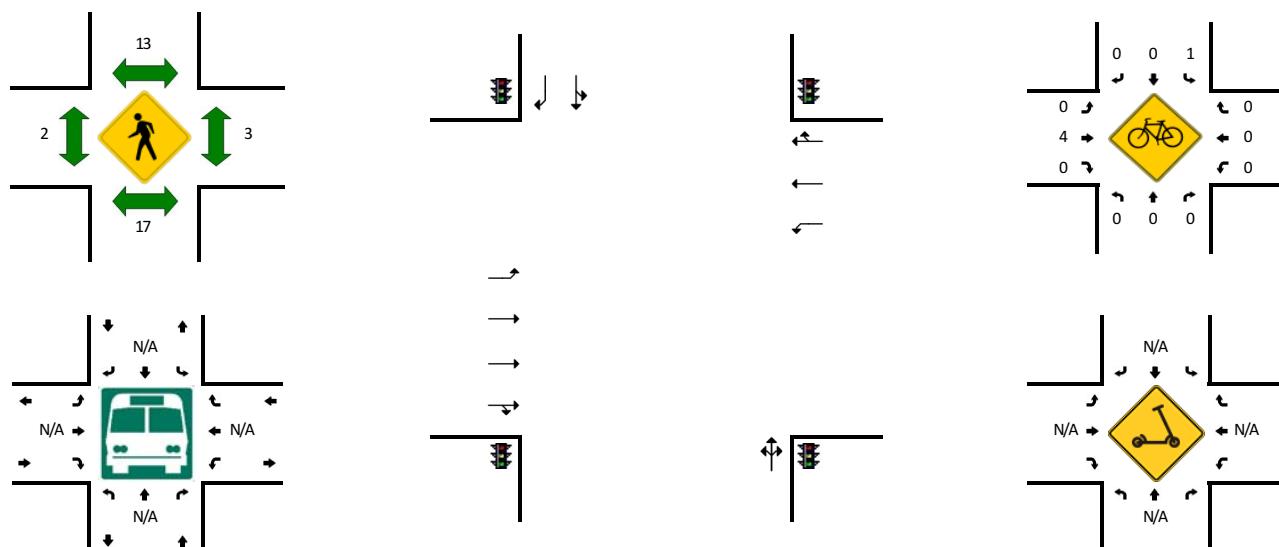
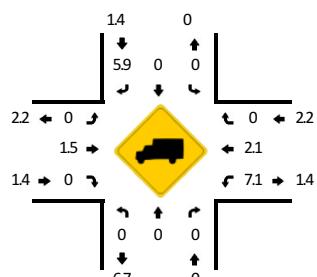
Report generated on 8/30/2022 6:43 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

**LOCATION:** Gadsen St -- Gervais St  
**CITY/STATE:** Columbia, SC

**QC JOB #:** 15913405  
**DATE:** Tue, Aug 23 2022

**Peak-Hour: 7:45 AM -- 8:45 AM**  
**Peak 15-Min: 8:15 AM -- 8:30 AM**


15-Min Count Period Beginning At	Gadsen St (Northbound)				Gadsen St (Southbound)				Gervais St (Eastbound)				Gervais St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U														
7:00 AM	0	0	0	0	2	0	4	0	3	224	3	0	0	103	5	1	345	
7:15 AM	1	1	1	0	1	1	2	0	5	302	4	0	2	118	5	0	443	
7:30 AM	0	0	1	0	8	0	3	0	3	363	1	0	0	145	5	0	529	
7:45 AM	0	1	0	0	16	0	2	0	9	425	0	0	4	156	4	1	618	1935
8:00 AM	0	0	0	0	12	1	8	0	5	455	0	0	2	156	3	1	643	2233
8:15 AM	1	0	2	0	16	0	4	0	11	467	2	0	3	151	10	1	668	2458
8:30 AM	0	1	1	0	12	0	3	0	6	375	1	0	2	145	9	0	555	2484
8:45 AM	0	0	1	0	7	1	7	0	10	333	0	0	1	155	7	0	522	2388
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U														
All Vehicles	4	0	8	0	64	0	16	0	44	1868	8	0	12	604	40	4	2672	
Heavy Trucks	0	0	0		0	0	4		0	24	0		0	20	0		48	
Buses																		
Pedestrians			20				12						0	0	0			32
Bicycles	0	0	0		4	0	0		0	4	0		0	0	0			8
Scooters																		

**Comments:**

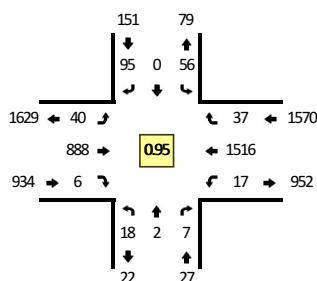
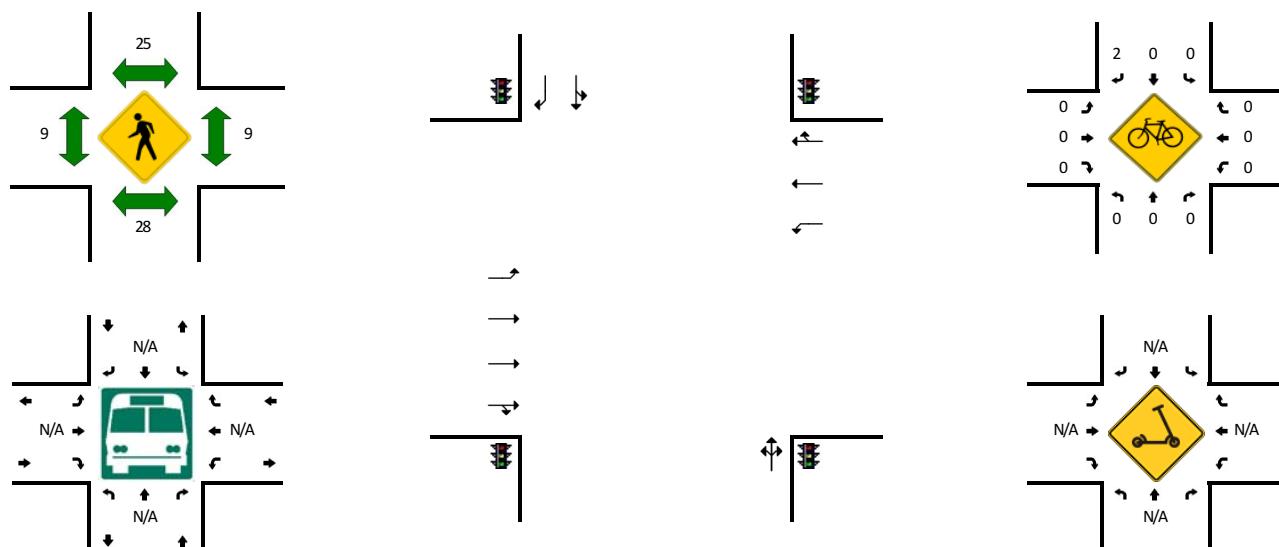
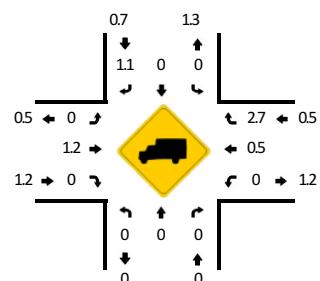
Report generated on 8/30/2022 6:43 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

**LOCATION:** Gadsen St -- Gervais St  
**CITY/STATE:** Columbia, SC

**QC JOB #:** 15913406  
**DATE:** Tue, Aug 23 2022

**Peak-Hour: 4:15 PM -- 5:15 PM**  
**Peak 15-Min: 4:15 PM -- 4:30 PM**


15-Min Count Period Beginning At	Gadsen St (Northbound)				Gadsen St (Southbound)				Gervais St (Eastbound)				Gervais St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U														
4:00 PM	4	1	4	0	11	0	14	0	12	237	1	0	1	353	11	0	649	
4:15 PM	2	0	3	0	13	0	22	0	13	234	0	0	8	404	9	0	708	
4:30 PM	7	0	2	0	9	0	23	0	6	200	0	0	3	361	12	0	623	
4:45 PM	5	0	2	0	17	0	20	0	12	224	3	0	3	373	8	0	667	2647
5:00 PM	4	2	0	0	17	0	30	0	9	230	3	0	2	378	8	1	684	2682
5:15 PM	2	0	4	0	24	1	24	0	6	238	2	0	2	345	10	0	658	2632
5:30 PM	4	2	4	0	19	0	30	0	10	217	0	0	4	293	6	0	589	2598
5:45 PM	0	3	5	0	14	0	18	0	10	211	1	1	4	327	11	1	606	2537
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U														
All Vehicles	8	0	12	0	52	0	88	0	52	936	0	0	32	1616	36	0	2832	
Heavy Trucks	0	0	0		0	0	0		0	12	0		0	20	4		36	
Buses																		
Pedestrians																		
Bicycles																		
Scooters	0	0	0		0	0	8		0	0	0		0	0	0		8	

**Comments:**

Report generated on 8/30/2022 6:43 AM

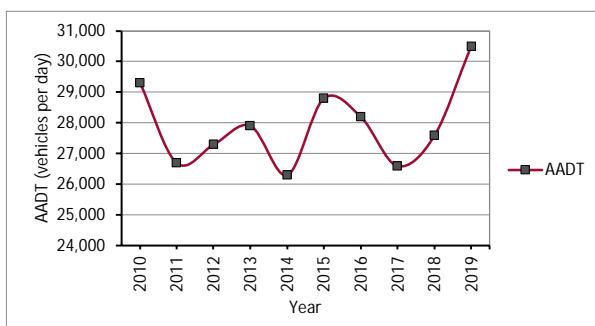
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

## **Appendix C – Historical Growth Rate**

Annual Average Daily Traffic (AADT) from the  
South Carolina Department of Transportation (SCDOT)

1

Station	400104
Route	US 1
Location	US 21 (HUGER ST) TO SC 48 (ASSEMBLY ST)
2010	29,300
2011	26,700
2012	27,300
2013	27,900
2014	26,300
2015	28,800
2016	28,200
2017	26,600
2018	27,600
2019	30,500



Annual Growth for Last Five (5) Years --- US 1 is 1.2%

Annual Growth for Last Ten (10) Years --- US 1 is 0.4%

TOTAL	
2010	29,300
2011	26,700
2012	27,300
2013	27,900
2014	26,300
2015	28,800
2016	28,200
2017	26,600
2018	27,600
2019	30,500

Total Study Area Annual Growth for Last Five (5) Years is 1.2%

Total Study Area Annual Growth for Last Ten (10) Years is 0.4%

## **Appendix D – Capacity Analysis Worksheets**

## **2022 EXISTING CONDITIONS**

**HCM 6th Signalized Intersection Summary**  
**2: Site Access #1/Gadsden Street & Gervais Street**

Vista Depot Master Plan  
2022 Existing AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖												
Traffic Volume (veh/h)	31	1722		3	14	608	26	1	2	3	56	1	17
Future Volume (veh/h)	31	1722		3	14	608	26	1	2	3	56	1	17
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1870	1885	1870	1796	1870	1870	1870	1870	1870	1870	1870	1870	1811
Adj Flow Rate, veh/h	33	1852		3	15	654	28	1	2	3	60	1	18
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	2	7	2	2	2	2	2	2	2	2	6
Cap, veh/h	679	3072	1322	223	2977	127	47	78	93	210	3	170	
Arrive On Green	0.86	0.86	0.84	0.86	0.86	0.84	0.11	0.11	0.10	0.11	0.11	0.11	
Sat Flow, veh/h	756	3582	1569	238	3470	148	133	699	832	1389	27	1522	
Grp Volume(v), veh/h	33	1852	3	15	335	347	6	0	0	61	0	18	
Grp Sat Flow(s), veh/h/ln	756	1791	1569	238	1777	1842	1664	0	0	1416	0	1522	
Q Serve(g_s), s	1.0	19.8	0.0	2.6	4.3	4.3	0.0	0.0	0.0	4.7	0.0	1.4	
Cycle Q Clear(g_c), s	5.4	19.8	0.0	22.4	4.3	4.3	0.4	0.0	0.0	5.1	0.0	1.4	
Prop In Lane	1.00			1.00	1.00		0.08	0.17		0.50	0.98		1.00
Lane Grp Cap(c), veh/h	679	3072	1322	223	1524	1580	218	0	0	213	0	170	
V/C Ratio(X)	0.05	0.60	0.00	0.07	0.22	0.22	0.03	0.00	0.00	0.29	0.00	0.11	
Avail Cap(c_a), veh/h	679	3072	1322	223	1524	1580	411	0	0	381	0	351	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	
Uniform Delay (d), s/veh	2.1	2.7	1.6	6.0	1.6	1.6	51.9	0.0	0.0	53.6	0.0	51.9	
Incr Delay (d2), s/veh	0.1	0.9	0.0	0.6	0.3	0.3	0.1	0.0	0.0	0.7	0.0	0.3	
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%), veh/l0.1	4.3	0.0	0.2	1.0	1.0	0.2	0.0	0.0	1.9	0.0	0.5		
Unsig. Movement Delay, s/veh													
LnGrp Delay(d), s/veh	2.2	3.6	1.6	6.6	2.0	2.0	52.0	0.0	0.0	54.3	0.0	52.2	
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D	
Approach Vol, veh/h		1888			697			6			79		
Approach Delay, s/veh		3.6			2.1			52.0			53.8		
Approach LOS		A			A			D			D		
Timer - Assigned Phs		2			4			6			8		
Phs Duration (G+Y+Rc), s	113.5			16.5			113.5			16.5			
Change Period (Y+Rc), s	6.0			6.0			6.0			6.0			
Max Green Setting (Gmax), s	92.0			26.0			92.0			26.0			
Max Q Clear Time (g_c+l1), s	0.0			7.1			0.0			2.4			
Green Ext Time (p_c), s	0.0			0.2			0.0			0.0			
<b>Intersection Summary</b>													
HCM 6th Ctrl Delay				4.8									
HCM 6th LOS				A									

**HCM 6th Signalized Intersection Summary**  
**2: Site Access #1/Gadsden Street & Gervais Street**

**Vista Deport Master Plan**  
**2022 Existing PM**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖ ↗ ↘ ↙ ↖											
Traffic Volume (veh/h)	40	888	6	17	1516	37	19	2	13	56	0	95
Future Volume (veh/h)	40	888	6	17	1516	37	19	2	13	56	0	95
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1885	1870	1870	1900	1856	1870	1870	1870	1870	1870	1885
Adj Flow Rate, veh/h	42	935	6	18	1596	39	20	2	14	59	0	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	2	2	0	3	2	2	2	2	2	1
Cap, veh/h	281	3059	1307	531	3074	75	100	19	48	211	0	180
Arrive On Green	0.85	0.85	0.84	0.85	0.85	0.84	0.12	0.12	0.10	0.12	0.00	0.12
Sat Flow, veh/h	307	3582	1559	593	3600	88	497	162	420	1352	0	1560
Grp Volume(v), veh/h	42	935	6	18	799	836	36	0	0	59	0	100
Grp Sat Flow(s), veh/h/ln	307	1791	1559	593	1805	1882	1079	0	0	1352	0	1560
Q Serve(g_s), s	5.4	6.7	0.1	0.8	15.1	15.2	1.2	0.0	0.0	0.0	0.0	7.9
Cycle Q Clear(g_c), s	20.7	6.7	0.1	7.5	15.1	15.2	6.5	0.0	0.0	5.4	0.0	7.9
Prop In Lane	1.00		1.00	1.00		0.05	0.56		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	281	3059	1307	531	1541	1607	167	0	0	211	0	180
V/C Ratio(X)	0.15	0.31	0.00	0.03	0.52	0.52	0.21	0.00	0.00	0.28	0.00	0.56
Avail Cap(c_a), veh/h	281	3059	1307	531	1541	1607	307	0	0	349	0	336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.2	1.9	1.7	2.6	2.5	2.5	53.6	0.0	0.0	53.2	0.0	54.4
Incr Delay (d2), s/veh	1.1	0.3	0.0	0.1	1.2	1.2	0.6	0.0	0.0	0.7	0.0	2.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/l0.4	1.5	0.0	0.1	3.6	3.8	1.1	0.0	0.0	1.8	0.0	3.2	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.3	2.1	1.7	2.7	3.7	3.7	54.2	0.0	0.0	54.0	0.0	57.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	E
Approach Vol, veh/h	983			1653			36			159		
Approach Delay, s/veh	2.3			3.7			54.2			55.9		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	113.0		17.0		113.0		17.0					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	94.0		24.0		94.0		24.0					
Max Q Clear Time (g_c+l1), s	0.0		9.9		0.0		8.5					
Green Ext Time (p_c), s	0.0		0.4		0.0		0.1					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			6.8									
HCM 6th LOS			A									

**2026 NO BUILD CONDITIONS**

**HCM 6th Signalized Intersection Summary**  
**2: Site Access #1/Gadsden Street & Gervais Street**

Vista Depot Master Plan  
2026 No Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↙	↖ ↖	↑ ↗	↑ ↘	↖ ↙	↑ ↖	↖ ↙	↑ ↗	↑ ↘	↖ ↙
Traffic Volume (veh/h)	33	1828	3	15	645	28	1	2	3	59	1	18
Future Volume (veh/h)	33	1828	3	15	645	28	1	2	3	59	1	18
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1885	1870	1796	1870	1870	1870	1870	1870	1870	1870	1811
Adj Flow Rate, veh/h	35	1966	3	16	694	30	1	2	3	63	1	19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	2	7	2	2	2	2	2	2	2	6
Cap, veh/h	652	3071	1321	201	2973	128	47	78	93	211	3	170
Arrive On Green	0.86	0.86	0.84	0.86	0.86	0.84	0.11	0.11	0.10	0.11	0.11	0.11
Sat Flow, veh/h	727	3582	1569	213	3469	150	134	698	832	1390	26	1522
Grp Volume(v), veh/h	35	1966	3	16	355	369	6	0	0	64	0	19
Grp Sat Flow(s), veh/h/ln	727	1791	1569	213	1777	1842	1664	0	0	1416	0	1522
Q Serve(g_s), s	1.2	22.6	0.0	3.3	4.6	4.7	0.0	0.0	0.0	5.0	0.0	1.5
Cycle Q Clear(g_c), s	5.9	22.6	0.0	25.9	4.6	4.7	0.4	0.0	0.0	5.4	0.0	1.5
Prop In Lane	1.00		1.00	1.00		0.08	0.17		0.50	0.98		1.00
Lane Grp Cap(c), veh/h	652	3071	1321	201	1523	1579	219	0	0	214	0	170
V/C Ratio(X)	0.05	0.64	0.00	0.08	0.23	0.23	0.03	0.00	0.00	0.30	0.00	0.11
Avail Cap(c_a), veh/h	652	3071	1321	201	1523	1579	411	0	0	380	0	351
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.2	2.9	1.6	7.0	1.7	1.7	51.9	0.0	0.0	53.6	0.0	51.9
Incr Delay (d2), s/veh	0.2	1.0	0.0	0.8	0.4	0.3	0.1	0.0	0.0	0.8	0.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/lr0.2	4.9	0.0	0.2	1.1	1.1	0.2	0.0	0.0	2.0	0.0	0.6	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	2.3	4.0	1.6	7.8	2.0	2.0	51.9	0.0	0.0	54.4	0.0	52.2
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h		2004			740			6			83	
Approach Delay, s/veh		3.9			2.1			51.9			53.9	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s	113.4		16.6		113.4		16.6					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	92.0		26.0		92.0		26.0					
Max Q Clear Time (g_c+l1), s	0.0		7.4		0.0		2.4					
Green Ext Time (p_c), s	0.0		0.2		0.0		0.0					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay		5.0										
HCM 6th LOS		A										

**HCM 6th Signalized Intersection Summary**  
**2: Site Access #1/Gadsden Street & Gervais Street**

**Vista Deport Master Plan**  
**2026 No Build PM**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↙	↖ ↖	↑ ↗	↑ ↘		↖ ↖			↖ ↗	↖ ↙
Traffic Volume (veh/h)	42	942	6	18	1609	39	20	2	14	59	0	101
Future Volume (veh/h)	42	942	6	18	1609	39	20	2	14	59	0	101
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.98		0.97	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1885	1870	1870	1900	1856	1870	1870	1870	1870	1870	1885
Adj Flow Rate, veh/h	44	992	6	19	1694	41	21	2	15	62	0	106
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	2	2	0	3	2	2	2	2	2	1
Cap, veh/h	257	3059	1307	504	3075	74	97	18	47	208	0	180
Arrive On Green	0.85	0.85	0.84	0.85	0.85	0.84	0.12	0.12	0.10	0.12	0.00	0.12
Sat Flow, veh/h	278	3582	1559	562	3601	87	464	157	405	1320	0	1560
Grp Volume(v), veh/h	44	992	6	19	847	888	38	0	0	62	0	106
Grp Sat Flow(s), veh/h/ln	278	1791	1559	562	1805	1883	1025	0	0	1320	0	1560
Q Serve(g_s), s	6.8	7.3	0.1	0.9	16.8	17.0	1.4	0.0	0.0	0.0	0.0	8.4
Cycle Q Clear(g_c), s	23.8	7.3	0.1	8.2	16.8	17.0	7.3	0.0	0.0	5.9	0.0	8.4
Prop In Lane	1.00		1.00	1.00		0.05	0.55		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	257	3059	1307	504	1541	1608	161	0	0	208	0	180
V/C Ratio(X)	0.17	0.32	0.00	0.04	0.55	0.55	0.24	0.00	0.00	0.30	0.00	0.59
Avail Cap(c_a), veh/h	257	3059	1307	504	1541	1608	300	0	0	345	0	336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	5.9	1.9	1.7	2.7	2.6	2.6	54.0	0.0	0.0	53.5	0.0	54.6
Incr Delay (d2), s/veh	1.4	0.3	0.0	0.1	1.4	1.4	0.7	0.0	0.0	0.8	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.5	1.6	0.0	0.1	4.0	4.3	1.2	0.0	0.0	1.9	0.0	3.5	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.4	2.2	1.7	2.9	4.0	4.0	54.7	0.0	0.0	54.3	0.0	57.6
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	E
Approach Vol, veh/h	1042			1754			38			168		
Approach Delay, s/veh	2.4			4.0			54.7			56.4		
Approach LOS	A			A			D			E		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	113.0		17.0		113.0		17.0					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	94.0		24.0		94.0		24.0					
Max Q Clear Time (g_c+l1), s	0.0		10.4		0.0		9.3					
Green Ext Time (p_c), s	0.0		0.4		0.0		0.1					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			7.0									
HCM 6th LOS			A									

## **2026 BUILD CONDITIONS**

**HCM 6th Signalized Intersection Summary**  
**2: Site Access #1/Gadsden Street & Gervais Street**

Vista Depot Master Plan  
2026 Build AM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↙	↖ ↖	↑ ↗	↑ ↘	↖ ↙	↑ ↗	↑ ↘	↖ ↙	↑ ↗	↖ ↙
Traffic Volume (veh/h)	33	1828	36	38	659	28	58	8	43	59	6	18
Future Volume (veh/h)	33	1828	36	38	659	28	58	8	43	59	6	18
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1885	1870	1796	1870	1870	1870	1870	1870	1870	1870	1811
Adj Flow Rate, veh/h	35	1966	39	41	709	30	62	9	46	63	6	19
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	1	2	7	2	2	2	2	2	2	2	6
Cap, veh/h	597	2888	1240	173	2799	118	126	27	72	225	19	249
Arrive On Green	0.81	0.81	0.79	0.81	0.81	0.79	0.16	0.16	0.15	0.16	0.16	0.16
Sat Flow, veh/h	717	3582	1568	206	3472	147	515	163	439	1054	117	1526
Grp Volume(v), veh/h	35	1966	39	41	363	376	117	0	0	69	0	19
Grp Sat Flow(s),veh/h/ln	717	1791	1568	206	1777	1842	1117	0	0	1171	0	1526
Q Serve(g_s), s	1.6	30.7	0.7	13.9	6.5	6.5	7.7	0.0	0.0	0.0	0.0	1.4
Cycle Q Clear(g_c), s	8.1	30.7	0.7	44.6	6.5	6.5	15.0	0.0	0.0	7.3	0.0	1.4
Prop In Lane	1.00		1.00	1.00		0.08	0.53		0.39	0.91		1.00
Lane Grp Cap(c), veh/h	597	2888	1240	173	1432	1485	224	0	0	244	0	249
V/C Ratio(X)	0.06	0.68	0.03	0.24	0.25	0.25	0.52	0.00	0.00	0.28	0.00	0.08
Avail Cap(c_a), veh/h	597	2888	1240	173	1432	1485	325	0	0	337	0	352
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.1	5.4	2.9	15.0	3.1	3.1	53.6	0.0	0.0	48.5	0.0	46.1
Incr Delay (d2), s/veh	0.2	1.3	0.0	3.2	0.4	0.4	1.9	0.0	0.0	0.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.2	9.0	0.2	0.8	1.9	2.0	3.8	0.0	0.0	2.1	0.0	0.5	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.3	6.7	3.0	18.2	3.5	3.5	55.5	0.0	0.0	49.2	0.0	46.2
LnGrp LOS	A	A	A	B	A	A	E	A	A	D	A	D
Approach Vol, veh/h		2040			780			117			88	
Approach Delay, s/veh		6.6			4.3			55.5			48.5	
Approach LOS		A			A			E			D	
Timer - Assigned Phs		2			4			6			8	
Phs Duration (G+Y+Rc), s		106.8			23.2			106.8			23.2	
Change Period (Y+Rc), s		6.0			6.0			6.0			6.0	
Max Green Setting (Gmax), s		92.0			26.0			92.0			26.0	
Max Q Clear Time (g_c+l1), s		0.0			9.3			0.0			17.0	
Green Ext Time (p_c), s		0.0			0.2			0.0			0.2	
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				9.1								
HCM 6th LOS				A								

**HCM 6th TWSC**  
**3: Wayne Street & Site Access #2**

**Vista Depot Master Plan**  
**2026 Build AM**

<b>Intersection</b>						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	1			1		
Traffic Vol, veh/h	5	0	0	0	40	26
Future Vol, veh/h	5	0	0	0	40	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	0	0	0	44	29
Major/Minor	Minor1		Major2			
Conflicting Flow All	117	-	0	0		
Stage 1	0	-	-	-		
Stage 2	117	-	-	-		
Critical Hdwy	6.42	-	4.12	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	5.42	-	-	-		
Follow-up Hdwy	3.518	-	2.218	-		
Pot Cap-1 Maneuver	879	0	-	-		
Stage 1	-	0	-	-		
Stage 2	908	0	-	-		
Platoon blocked, %			-			
Mov Cap-1 Maneuver	879	-	-	-		
Mov Cap-2 Maneuver	879	-	-	-		
Stage 1	-	-	-	-		
Stage 2	908	-	-	-		
Approach	WB		SB			
HCM Control Delay, s	9.1					
HCM LOS	A					
Minor Lane/Major Mvmt	WBLn1	SBL	SBT			
Capacity (veh/h)	879	-	-			
HCM Lane V/C Ratio	0.006	-	-			
HCM Control Delay (s)	9.1	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0	-	-			

**HCM 6th TWSC**  
**4: Wayne Street/Pendleton Street & Site Access #3**

**Vista Depot Master Plan**  
**2026 Build AM**

<b>Intersection</b>						
Int Delay, s/veh	1.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
<b>Lane Configurations</b>						
Traffic Vol, veh/h	9	22	0	0	8	0
Future Vol, veh/h	9	22	0	0	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	24	0	0	9	0

Major/Minor	Major1	Minor2
Conflicting Flow All	0	44
Stage 1	-	0
Stage 2	-	44
Critical Hdwy	4.12	6.42
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	5.42
Follow-up Hdwy	2.218	3.518
Pot Cap-1 Maneuver	-	967
Stage 1	-	0
Stage 2	-	978
Platoon blocked, %	-	
Mov Cap-1 Maneuver	-	967
Mov Cap-2 Maneuver	-	967
Stage 1	-	-
Stage 2	-	978

Approach	EB	SB
HCM Control Delay, s		8.8
HCM LOS		A
<hr/>		
Minor Lane/Major Mvmt	EBL	EBT SBLn1
Capacity (veh/h)	-	967
HCM Lane V/C Ratio	-	0.009
HCM Control Delay (s)	-	8.8
HCM Lane LOS	-	A
HCM 95th %tile Q(veh)	-	0

**HCM 6th Signalized Intersection Summary**  
**2: Site Access #1/Gadsden Street & Gervais Street**

Vista Deport Master Plan  
2026 Build PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↙	↖ ↖	↑ ↗	↑ ↘	↖ ↙	↖ ↖	↑ ↗	↖ ↙	↑ ↘	↖ ↖
Traffic Volume (veh/h)	42	942	53	52	1629	39	77	8	54	59	7	101
Future Volume (veh/h)	42	942	53	52	1629	39	77	8	54	59	7	101
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.98	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1885	1870	1870	1900	1856	1870	1870	1870	1870	1870	1885
Adj Flow Rate, veh/h	44	992	56	55	1715	41	81	8	57	62	7	106
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	1	2	2	0	3	2	2	2	2	2	1
Cap, veh/h	215	2808	1196	431	2824	67	145	23	80	245	25	292
Arrive On Green	0.78	0.78	0.77	0.78	0.78	0.77	0.19	0.19	0.17	0.19	0.19	0.19
Sat Flow, veh/h	273	3582	1556	536	3602	86	550	125	432	1038	135	1574
Grp Volume(v), veh/h	44	992	56	55	857	899	146	0	0	69	0	106
Grp Sat Flow(s),veh/h/ln	273	1791	1556	536	1805	1883	1108	0	0	1173	0	1574
Q Serve(g_s), s	10.4	10.8	1.1	4.4	25.4	25.7	11.0	0.0	0.0	0.0	0.0	7.6
Cycle Q Clear(g_c), s	36.1	10.8	1.1	15.2	25.4	25.7	17.9	0.0	0.0	6.9	0.0	7.6
Prop In Lane	1.00		1.00	1.00		0.05	0.55		0.39	0.90		1.00
Lane Grp Cap(c), veh/h	215	2808	1196	431	1415	1476	248	0	0	270	0	292
V/C Ratio(X)	0.20	0.35	0.05	0.13	0.61	0.61	0.59	0.00	0.00	0.26	0.00	0.36
Avail Cap(c_a), veh/h	215	2808	1196	431	1415	1476	290	0	0	311	0	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	4.2	3.6	6.5	5.8	5.8	52.4	0.0	0.0	45.9	0.0	46.3
Incr Delay (d2), s/veh	2.1	0.3	0.1	0.6	1.9	1.9	2.3	0.0	0.0	0.5	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/lr0.7	3.3	0.3	0.5	8.4	8.9	4.7	0.0	0.0	2.0	0.0	3.1	
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.4	4.5	3.7	7.1	7.7	7.7	54.7	0.0	0.0	46.4	0.0	47.0
LnGrp LOS	B	A	A	A	A	A	D	A	A	D	A	D
Approach Vol, veh/h	1092			1811			146			175		
Approach Delay, s/veh	4.9			7.7			54.7			46.8		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	103.9		26.1		103.9		26.1					
Change Period (Y+Rc), s	6.0		6.0		6.0		6.0					
Max Green Setting (Gmax), s	94.0		24.0		94.0		24.0					
Max Q Clear Time (g_c+l1), s	0.0		9.6		0.0		19.9					
Green Ext Time (p_c), s	0.0		0.5		0.0		0.2					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay		11.0										
HCM 6th LOS		B										

**HCM 6th TWSC**  
**3: Wayne Street & Site Access #2**

**Vista Deport Master Plan**  
**2026 Build PM**

<b>Intersection</b>						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	1			1		
Traffic Vol, veh/h	5	0	0	0	31	16
Future Vol, veh/h	5	0	0	0	31	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	0	0	0	34	18
Major/Minor	Minor1		Major2			
Conflicting Flow All	86	-		0	0	
Stage 1	0	-		-	-	
Stage 2	86	-		-	-	
Critical Hdwy	6.42	-		4.12	-	
Critical Hdwy Stg 1	-	-		-	-	
Critical Hdwy Stg 2	5.42	-		-	-	
Follow-up Hdwy	3.518	-		2.218	-	
Pot Cap-1 Maneuver	915	0		-	-	
Stage 1	-	0		-	-	
Stage 2	937	0		-	-	
Platoon blocked, %				-		
Mov Cap-1 Maneuver	915	-		-	-	
Mov Cap-2 Maneuver	915	-		-	-	
Stage 1	-	-		-	-	
Stage 2	937	-		-	-	
Approach	WB		SB			
HCM Control Delay, s	9					
HCM LOS	A					
Minor Lane/Major Mvmt	WBLn1	SBL	SBT			
Capacity (veh/h)	915	-	-			
HCM Lane V/C Ratio	0.006	-	-			
HCM Control Delay (s)	9	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	0	-	-			

## HCM 6th TWSC

## 4: Wayne Street/Pendleton Street &amp; Site Access #3

## Vista Deport Master Plan

2026 Build PM

Intersection								
Int Delay, s/veh	3							
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations								
Traffic Vol, veh/h	13	8	0	0	11	0		
Future Vol, veh/h	13	8	0	0	11	0		
Conflicting Peds, #/hr	0	0	0	0	0	0		
Sign Control	Free	Free	Free	Free	Stop	Stop		
RT Channelized	-	None	-	None	-	None		
Storage Length	-	-	-	-	0	-		
Veh in Median Storage, #	-	0	0	-	0	-		
Grade, %	-	0	0	-	0	-		
Peak Hour Factor	90	90	90	90	90	90		
Heavy Vehicles, %	2	2	2	2	2	2		
Mvmt Flow	14	9	0	0	12	0		
Major/Minor	Major1		Minor2					
Conflicting Flow All	0	0	37		-			
Stage 1	-	-	0		-			
Stage 2	-	-	37		-			
Critical Hdwy	4.12	-	6.42		-			
Critical Hdwy Stg 1	-	-	-		-			
Critical Hdwy Stg 2	-	-	5.42		-			
Follow-up Hdwy	2.218	-	3.518		-			
Pot Cap-1 Maneuver	-	-	975		0			
Stage 1	-	-	-		0			
Stage 2	-	-	985		0			
Platoon blocked, %	-	-	-		-			
Mov Cap-1 Maneuver	-	-	975		-			
Mov Cap-2 Maneuver	-	-	975		-			
Stage 1	-	-	-		-			
Stage 2	-	-	985		-			
Approach	EB		SB					
HCM Control Delay, s			8.7					
HCM LOS			A					
Minor Lane/Major Mvmt	EBL	EBT	SBLn1	SBLn2	SBLn3	SBLn4		
Capacity (veh/h)	-	-	975	-	-	-		
HCM Lane V/C Ratio	-	-	0.013	-	-	-		
HCM Control Delay (s)	-	-	8.7	-	-	-		
HCM Lane LOS	-	-	A	-	-	-		
HCM 95th %tile Q(veh)	-	-	0	-	-	-		

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